Los Alamos National Laboratory- Engineering Institute

The LANL-Engineering Institute works on the development for novel human-machine interfaces for structural health monitoring, structural inspection, glovebox safety and robotics applications. Specific areas we are exploring is the use of the phenomena of sensory substitution to communicate data collected by distributed sensor networks to humans while they are actively engaged in other tasks. We are also interested in extending the reach of human senses using robotics. Specifically, we are exploring the ability to use drones to facilitate structural inspections that would normally require that an inspector use a crane or rigging to inspect difficult-to-access parts of the structure. We are also interested in using augmented reality for these applications. Finally, we are actively involved in research to synthesize artificial personalities. We are looking for possible areas to collaborate on all of these topics.